TOP SECRET

[redacted]

[redacted]

PHOTOGRAPHIC
INTERPRETATION
REPORT

NATIONAL PHOTOGRAPHIC
INTERPRETATION CENTER

COMMUNICATIONS FACILITIES, SOVIET FAR EAST PVO SYSTEM

DEPLOYED COMM/ELEC/RADAR FACILITIES

USSR

[redacted]

25X1

TOP SECRET

[redacted]

25X1

AUGUST 1970

COPY NO 117

11 PAGES

PIR-053/70

GROUP 1: EXCLUDED FROM
AUTOMATIC DOWNGRADING
AND DECLASSIFICATION

COMMUNICATIONS FACILITIES, SOVIET FAR EAST PVO SYSTEM

1. The eight communications facilities listed below were identified from high-resolution KEYHOLE photography through June 1969. Seven of the facilities probably serve a Soviet Far East PVO (air defense of the homeland) [redacted] This system consists of two communications networks. One network has reported terminals at Petropavlovsk, Provideniya, and Khabarovsk; the other has reported terminals at Petropavlovsk, Blagoveshchensk, and Vladivostok (Figure 1). The Petropavlovsk terminal area reportedly serves as the control point for both networks.

2. Three of the facilities described in this report probably serve the Petropavlovsk terminal area--two contain short- and intermediate-range antennas, and one contains a direction-finding (DF) FIX 24 antenna. Two facilities containing long range high- and very high-frequency (HF and VHF) communications antennas probably serve the northernmost terminal area at Provideniya. Two facilities containing only short- and intermediate-range antennas probably serve the terminal area at Khabarovsk. The eighth facility contains an HF/DF THICK EIGHT antenna, located in an area just outside of the Blagoveshchensk terminal area, and has not been designated as probable PVO-associated. No PVO-associated facilities were identified in the Vladivostok terminal area. Antenna orientations for those areas with long-range communications appear in Figure 2.

Petropavlovsk FIX 24 Facility
53-07-00N 158-53-10E, BE None

Petropavlovsk HF Communications Facility
53-06-00N 158-52-50E, BE None

Petropavlovsk HF Communications Facility NE
53-07-00N 158-56-20E, BE None

Provideniya Radio Communications Station 2
64-23-56N 173-11-30W, [redacted]

Provideniya Radio Station 3
64-22-30N 173-13-00W, [redacted]

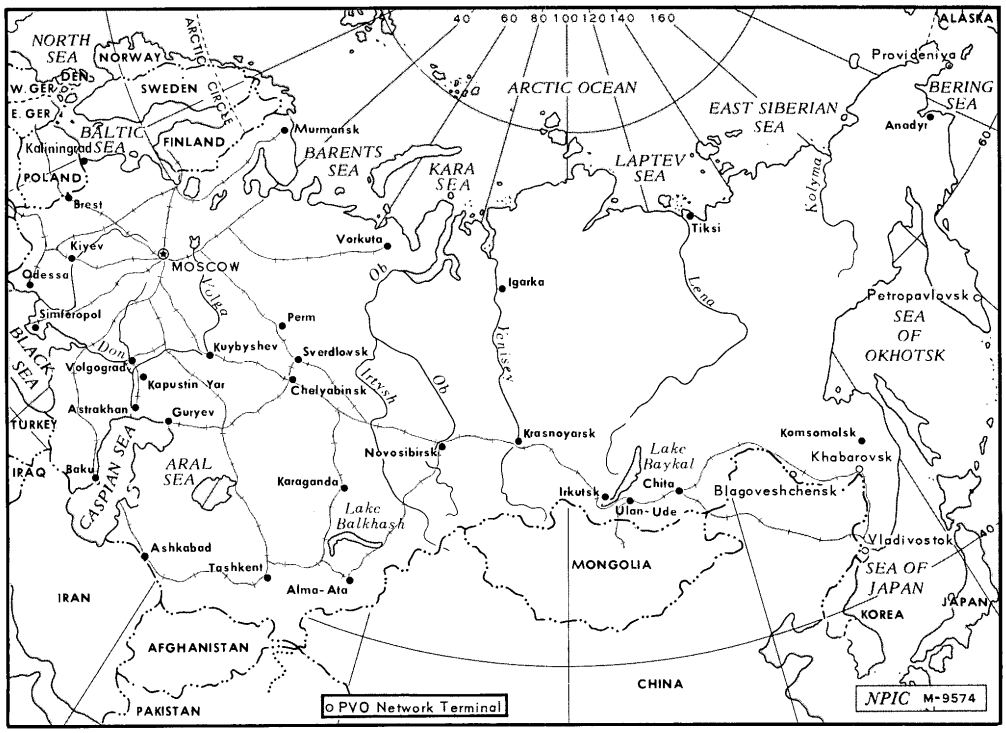

FIGURE 1. LOCATION MAP

25X1

25X1

Khabarovsk/Blagodatnoye HF Communications Facility 48-26-10N 134-25-30E, BE None

Khabarovsk/Blagodatnoye HF Communications Facility 48-25-00N 135-23-25E, BE None

Blagoveshchensk THICK EIGHT Facility 50-22-00N 127-25-30E, BE None

3. This report identifies and describes significant features at the eight facilities, and provides location maps, annotated photographs, and mensural and reference data.

PETROPAVLOVSK TERMINAL AREA

4. A FIX 24 facility (Figure 3) is located 7.0 nautical miles (nm) northeast of Petropavlovsk, on cleared, level terrain, adjacent to the northwest side of the Petropavlovsk TALL KING Air Defense Headquarters Radar Facility The FIX 24 facility consists of a DF FIX 24 antenna and a support area containing HF communications antennas. The FIX 24 antenna (inset, Figure 3) is a circular antenna array The circular array consists of 24 guyed, vertical-mast dipole elements that are each A vertical cage dipole is mast-mounted atop a control building in the center of the array. Unlike other FIX 24 antennas, the central control building at Petropavlovsk is round, and one story high.*

25X1

25X1

25X1

25X1

5. The FIX 24 support area (Figure 4), adjacent to the array, contains a T-shaped operations building. Seven horizontal dipole antennas arranged in a semicircle on the northeast side of the operations building are oriented to provide HF coverage of the Kamchatka Peninsula (Figure 2). Although the beam width of a horizontal dipole is wide, an open source indicates that horizontal dipoles will be oriented to within ± (3) degrees of their correspondents.[1] The support area contains 21 support buildings and seven housing buildings.

6. Two HF communications facilities are associated with the Petropavlovsk TALL KING facility. One communications facility is 2.1 nm east of the FIX 24 facility and contains two horizontal dipole antennas and two FORK REST antennas. The other is 1.0 nm south of the FIX 24 facility and contains one Vee (quadrant) antenna and two FORK REST antennas. The two HF communications facilities provide the TALL KING AD headquarters facility with short- and intermediate-range HF and VHF communications.

PROVIDENIYA TERMINAL AREA

7. Two probable PVO-associated communications facilities are located in the Provideniya area. The Provideniya Radio Communications Station 2 (Figure 5) is located 1.0 nm south of the city and contains two double and two single rhombic transmitting antennas, two FORK REST antennas, seven unidentified masts, one control building, and four support buildings. One double rhombic antenna is oriented toward Moscow, one single rhombic is oriented toward Khabarovsk, and one single rhombic and one double rhombic antenna are oriented toward Yuzhno-Sakhalinsk (Figure 2).

8. Provideniya Radio Station 3 (Figure 6) is located 2.5 nm south of the city, and contains seven receiving rhombic antennas, three horizontal dipole antennas, and two unidentified masts, two control buildings and 24 support buildings. Two single rhombic antennas are oriented to receive from Khabarovsk, one single rhombic from Yuzhno-Sakhalinsk, and two single rhombics from undetermined correspondents (Figure 2). The Provideniya Air Warning Radar Facility is situated between the two radio stations.

25X1

25X1

KHABAROVSK TERMINAL AREA

9. Two probable PVO-associated HF communications facilities are located in the Khabarovsk area. The facilities are located near the Khabarovsk/Blagodatnoye Airfield and the Blagodatnoye TALL KING AW Radar Facility . One facility (Figure 7) is 13.0 nm east of the city, and 1.2 nm north of the airfield and radar facility, and contains six horizontal dipole antennas, three probable FORK REST antenna masts, one control building, and two support buildings. The other communications facility (Figure 8) is 10.0 nm east of Khabarovsk, and 1.5 nm west of the airfield and radar facility, and contains three horizontal dipole antennas, three probable FORK REST antenna masts, one control building, and three small support buildings. Both facilities appear to handle local communications, since the horizontal dipoles are short-range antennas.

BLAGOVESCHENSK TERMINAL AREA

10. No PVO-associated communications facilities could be identified. However, an HF/DF THICK EIGHT facility is located 7.0 nm northwest of the city and 3.0 nm south of Blagoveshchensk Airfield Northwest

VLADIVOSTOK TERMINAL AREA

11. No PVO-associated communications facilities could be identified. However, two VHF communications facilities are associated with the Uglovoye NW Airfield AW Radar Facility One facility is east of the airfield facility and contains nine FORK REST antennas, four probable FORK REST antennas, one control building, and two small support buildings. The second facility is 2.0 nm north of the airfield facility and contains nine FORK REST antennas, one control building, and two support buildings.

Next 6 Page(s) In Document Denied

25X1

REFERENCES

25X1

MAPS OR CHARTS

ACIC. US Air Target Charts, series 200, scale 1:200,000

DOCUMENT

1. USSR. Committee of Standards, Measurements and Instruments, The USSR Council of Ministers, GOST 8025-56, Transmitting Shortwave Band Symmetrical Antennas, Moscow, 1956 (UNCLASSIFIED)

RELATED DOCUMENT

GOST 6497-53, Receiving Shortwave Band Symmetrical Antennas, Moscow, 1965 (UNCLASSIFIED)

REQUIREMENT

25X1

NPIC 250693

25X1

25X1